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09/686,033	10/11/2000	William P. Chiles	MS154755.1	5914

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EXAMINER	
GROSS, KENNETH A	

ART UNIT	PAPER NUMBER
2122	7

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/686,033	Applicant(s) CHILES ET AL.	
	Examiner Kenneth A Gross	Art Unit 2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-31 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-31 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2-6 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claims 5, 20, and 24 are objected to because of the following informalities: Claim 5 states "one or more objects one or more data structures". This should read, "one or more objects, and one or more data structures". Claim 20 states "means for adding one or more items from the code model object". This should read, "means for adding one or more items to the code model object". : Claim 24 states "one or more objects and one or more data structures". This should read, "one or more objects, and one or more data structures". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4-13, and 1 9-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to Claim 4, the term "encapsulating functionality within the computer programming language" is unclear. Does this mean that the code model objects encapsulate the functionality of the programming language? In regard to Claim 11, the term "objects associated with the computer programming languages" is unclear. Are these the objects presented in Claim 1 or the code model objects introduced in Claim 4? Thus Claims 5-13 are also rejected for being dependent on a rejected base claim. In regard to Claim 19, the term

"means for writing one or more attributes of the code model object" is unclear. Does this mean "writing *to*" attributes of the code model object, as in updating the value of an attribute, or does this mean adding attributes to the code model object? Thus Claims 20 and 21 are also rejected for being dependent on a rejected base claim. In regard to Claim 22, the term "the code model provides isolation between the programmatic interface and the computer programming languages" is unclear. In Claim 22, the fourth line down states that the computer programming languages ***interact*** with the programmatic interface. If this is so, how is the term 'isolated' defined here? Clarification is necessary. Thus Claims 23-31 are rejected for being dependent on a rejected base Claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-19 and 22-31 are rejected under 35 U.S.C. 102(b) as being anticipated by McInerney et al. (U.S. Patent Number 5,325,533).

In regard to Claim 1, McInerney teaches a plurality of objects that enable interactions with computer programming languages at a semantic level. (Column 3, lines 7-13).

In regard to Claim 2, McInerney teaches an interface, which provides a graphical window for editing a programming language, which allows for interaction of a programming language at a syntactic level (Figure 16).

In regard to Claim 3, McInerney teaches that each object is associated with a specific computer language, and so a group of objects of a specific computer language composes a code model (Column 8, lines 6-21).

In regard to Claim 4, McInerney teaches components as code model objects that represent the functionality of a programming language (Column 8, lines 41-50). Claim 23 corresponds directly with Claim 4 and is rejected for the same reasons as Claim 4.

In regard to Claim 5, McInerney teaches that the components of the code model can represent functions, classes, and data structures (Column 8, lines 41-50). Claim 24 corresponds directly with Claim 5 and is rejected for the same reasons as Claim 5.

In regard to Claim 6, the examiner takes official notice that an object of any kind would have a class from which it was instantiated. Claim 25 corresponds directly with Claim 6 and is rejected for the same reasons as Claim 6.

In regard to Claim 7, McInerney teaches that the component objects do model semantic elements of a programming language (Column 8, lines 41-50). Claim 26 corresponds directly with Claim 7 and is rejected for the same reasons as Claim 7.

In regard to Claim 8, McInerney teaches that the components of the code model can represent functions (Column 8, lines 41-50). Claim 27 corresponds directly with Claim 8 and is rejected for the same reasons as Claim 8.

In regard to Claim 9, McInerney teaches that the components of the code model can represent functions (Column 8, lines 41-50). Claim 28 corresponds directly with Claim 9 and is rejected for the same reasons as Claim 9.

In regard to Claim 10, McInerney teaches an editor for interacting with the components (Column 11, lines 35-46).

In regard to Claim 11, McInerney teaches that components associated with the semantic elements of a programming language are modified to become code model components by creating the components, and associating them with a project component, thus adding code to the project component in order to associate the component with a code model used in a project (Column 21, lines 47-63). Claim 29 corresponds directly with Claim 11 and is rejected for the same reasons as Claim 11.

In regard to Claim 12, McInerney teaches a "data member" component which is an object that contains the functionality of a data member, hence a variable. (Column 8, lines 41-50). Therefore this component models a variable. The data member component is a child of a project component, and hence this variable component can be seen as existing within the project component (Column 3, lines 22-24). Claim 30 corresponds directly with Claim 12 and is rejected for the same reasons as Claim 12.

In regard to Claim 13, McInerney teaches storing the parent of a component as a property (Column 9, lines 10-19). As shown in Figure 3, components are designed in a tree structure, where the parent of the component is stored in the Container property. Claim 31 corresponds directly with Claim 13 and is rejected for the same reasons as Claim 13.

In regard to Claim 14, McInerney teaches retrieving and interacting with the Project component through an interface (Column 20, lines 55-67). Claim 17 corresponds directly with Claim 14 and is rejected for the same reasons as Claim 14.

In regard to Claim 15, McInerney teaches the method of Claim 14, and further teaches interacting with the code model object by: (a) reading one or more attributes of the code model object (Column 20, lines 60-67); (b) invoking one or more methods of the code model object (Column 21, lines 61-63); (c) adding or removing zero or more items from the code model object (Column 21, lines 47-63); and (d) incorporating the code model object into a computer programming project (Column 20, lines 60-67).

In regard to Claim 16, McInerney teaches that items are components, which include the functionality of classes and functions among others (Column 8, lines 41-50).

In regard to Claim 18, McInerney teaches a method of reading and writing to one or more programming languages (Column 21, lines 64-67 and Column 22, lines 1-6).

In regard to Claim 19, McInerney teaches: (a) means for reading one or more attributes of the code model object (Column 21, lines 41-46); (b) means for writing to one or more attributes of the code model object (Column 11, lines 35-46); (c) means for invoking one or more methods of the code model object (Column 21, lines 61-63).

In regard to Claim 22, McInerney teaches a code model associated with a plurality of code model objects (Column 8, lines 6-21), a programmatic interface to interact with programming languages as a semantic level (Column 3, lines 7-13 and Column 20, lines 55-67). The interface is graphical, and provides isolation from the programming language though component objects that can be configured graphically. The interface provides a graphical window in which to edit a programming language, which allows for interaction of a programming language at a syntactic level (Figure 16).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over by McInerney et al. (U.S. Patent Number 5,325,533) in view of Jordan (U.S. Patent Number 5,778,227).

In regard to Claim 20, McInerney teaches the system of Claim 19, and further teaches a means for adding one or more items to the code model object (Column 21, lines 47-63). Although McInerney does teach a component editor for adding components to the project, McInerney does not explicitly teach a means for removing items from a code model object. Jordan, however, does teach removing an attribute object from a primary object (Figure 6, item 368). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have a system for adding one or more items to a code model object as taught by McInerney, where the system further has functionality to remove items from a code model object, as taught by Jordan, since this allows components that are no longer needed to be removed.

In regard to Claim 21, McInerney teaches that items are components, which include the functionality of classes and functions among others (Column 8, lines 41-50).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Charisus et al. (U.S. Publication Number 2002/0016954)

Freed et al. (U.S. Patent Number 6,269,473)

Burgess (U.S. Patent Number 6,192,160)

Nguyen et al. (U.S. Patent Number 5,581,203)

Hunt (U.S. Patent Number 6,499,137)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Gross whose telephone number is (703) 305-0542. The examiner can normally be reached on Mon-Fri 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on (703) 305-4552. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

KAG
August 11, 2003

TUAN Q. DAM
PRIMARY EXAMINER